The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD
SECRETARY

JOHN AUERBACH
COMMISSIONER

Evandro Carvalho, ADA

Suffolk County District Attorney's Office
By e-mail

June 3, 2011

Re: Comm. v. █████████████████

ADA Carvalho,
Please find below the material you requested regarding the case noted above.

1) the chemist's c.v.'s
2) the Evidence Office receipt to the Boston Police
3) the inventory control card
4) the Drug Powder Analysis Form
5) the gas chromatography/mass spectrometry (gs/ms) data

I was the custodial chemist for this case, responsible for the chain of custody, weights and preliminary analysis. Ms. Khan was the gc/ms chemist performing the confirmatory tests on the "mass spec." If you need further clarification of this material, call me directly at (617) 983-6627.

Sincerely,

Michael Lawler
Senior Chemist

Cc: Charles Salemi, Annie Khan

Curriculum Vitae

Michael Lawler

Education:
University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975
Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

Experience:
1990-present currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits.

2005-present lecturer in chemistry, Curry College, Milton, Ma.

1988-1990 New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

1983-1988 Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

1982-1983 NENS hypothyroid assay technologist with Tuft's University

1979-1981 Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

Additional education and special training
Drug Analysis, completed six week training course by senior staff within the Department of Public Health Drug Analysis Laboratory
National Laboratory Network Training Program course as Expert Witness
Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court
CDC course in cell culture
CDC course in antibiotic resistance
CDC course in public health response to bioterrorism
U.S. Army course in biologic warfare and terrorism

Journal Publications
Screening, 1992, 1:34-37; Lawler,M., Frederick,S., Rodriguez-Anza, S.,Wolf,B., Levy,H., *Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases*

Genetic Screening, 1990, 11-18, Mitchell,M., Lawler,M., Walraven,C., Hermos,R., *To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?*

The Journal of Pediatrics, 116: 78-83, Secor-McVoy,J., Lawler,M., Schmidt, M., Ebers,D., Hart,P., Pettit,D., Blitzer,M.,Wolf,B., *Partial Biotinidase Deficiency: Clinical and Biochemical Features*

Professional Affiliations
Northeastern Association of Forensic Scientists (NEAFS) since 2005

Awards
Theobald Smith Education Grant for graduate studies

Curriculum Vitae

Annie Khan (Dookhan)

Education:
University of Massachusetts, Boston, Ma, Master of Science in Chemistry.
University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

Experience:
2003 – present
Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.
*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.
*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.
*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.
*Maintenance and repairs of all analytical instruments.
*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.
*Responsible for the Quality Control/Quality Assurance program for the drug lab.
*Notary Public.
*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003
QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.
*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.
*Writing, revising and reviewing Standard Operating Procedures (SOPs).
*Trained and supervised new chemists and interns for the department.
*Routine QC testing of products for the FDA.
*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.
*Calibration, preventive maintenance, QC and QA of analytical instrumentation.
*Complete testing of chemicals for Vendor Validation Project for the FDA.
*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

Additional Training:
Dept. of Justice – Forensics Professionals. (numerous trainings)
GLP/GMP course with Massachusetts Biologic Laboratory.
QC/QA training according to FDA Codes and Regulations.
GC and GC/MS courses with Agilent Technologies and Restek.
HPLC course with Waters Cooperation.
FTIR course with Spectros.
TOC training with MBL and Sievers.

Association:
American Chemical Society (ACS)
Northeastern Association of Forensics Science (NEAFS)

BostonPolice DEPARTMENT

DRUG RECEIPT

CC # ████████

BOOK # 30

PAGE # 168

DESTRUCTION # _____

District/Unit _____ E13 / DCU

Name & Rank of Arresting Officer _____ P.O. Samaras _____ ID# 103784

DEFENDANT'S NAME	ADDRESS	CITY	STATE
████████		Roxbury	MA

DESCRIPTION OF ITEMS SUBMITTED	GROSS QUANTITY	LAB USE ONLY GROSS WEIGHT	ANALYSIS NUMBER
Crack Cocaine	3 p/b	2.83g	████

To be completed by ECU personnel only

Name and Rank of Submitting Officer _____ ID# 9320

Received by _____ Date 3-31-11

ECU Control # _____

BPD Form 0038-BIS-0907 (prev. 1753)

No. ▮▮▮▮▮▮▮▮   Date Analyzed: 6u-28-11

City: Boston D.C.U. Police Dept.

Officer: P.O. Diana Lopez

Def: ▮▮▮▮▮▮▮▮▮▮▮▮

Amount: Subst: SUB

No. Cont: 3   Cont: pb

Date Rec'd: 03/31/2011   No. Analyzed: 1

Gross Wt.:   2.83   Net Weight: $0.20g$

                                          # Tests: 9/m2

Prelim: Cocaine (K)   Findings: Cocaine

GC(MS®
GCMS11.5

DRUG POWDER ANALYSIS FORM

4-28-11

SAMPLE # ████████ AGENCY _Boston Botticello_ ANALYST _MM_

No. of samples tested: _1_ Evidence Wt. _2.83_

PHYSICAL DESCRIPTION:

3pb w/ sub

Gross Wt ( ): _0.8019_

Gross Wt ( ): _____

Pkg. Wt: _____

Net Wt: _0.2026_

OHAUS 2334 4-22-11
$20g = 19.9998g$
$10g = 9.9998g$
$5g = 4.9999g$
$1g = 0.9999g$

PRELIMINARY TESTS
Spot Tests

Cobalt Thiocyanate ( ) (-)

Marquis (-)

Froehde's (-)

Mecke's (-)

Microcrystalline Tests

Gold Chloride (+)

TLTA (+) ( )

OTHER TESTS

_____

_____

_____

PRELIMINARY TEST RESULTS

RESULTS _____

DATE _____

GC/MS CONFIRMATORY TEST

RESULTS _Cocaine_

MS OPERATOR _ASD_

DATE _4-28-11_

Revised 7/2005

Folk_OIG_PRR_037115

Area Percent / Library Search Report

Information from Data File:
File Name   : F:\SYSTEM7\04_25_11\784204.D
Operator   : ASD
Date Acquired : 25 Apr 2011   9:55
Sample Name   : BLANK
Submitted by   :
Vial Number   : 1
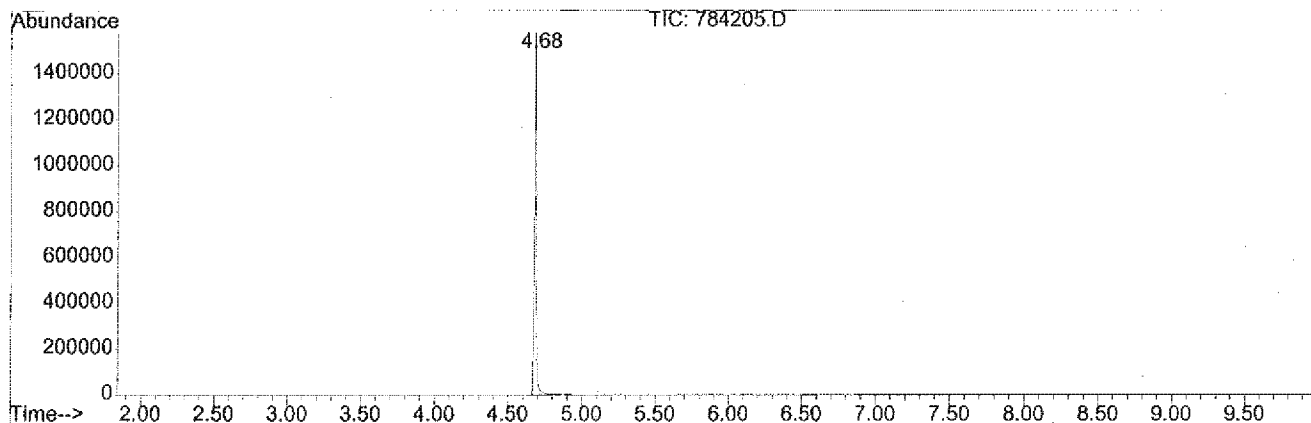AcquisitionMeth: DRUGS
Integrator   : RTE
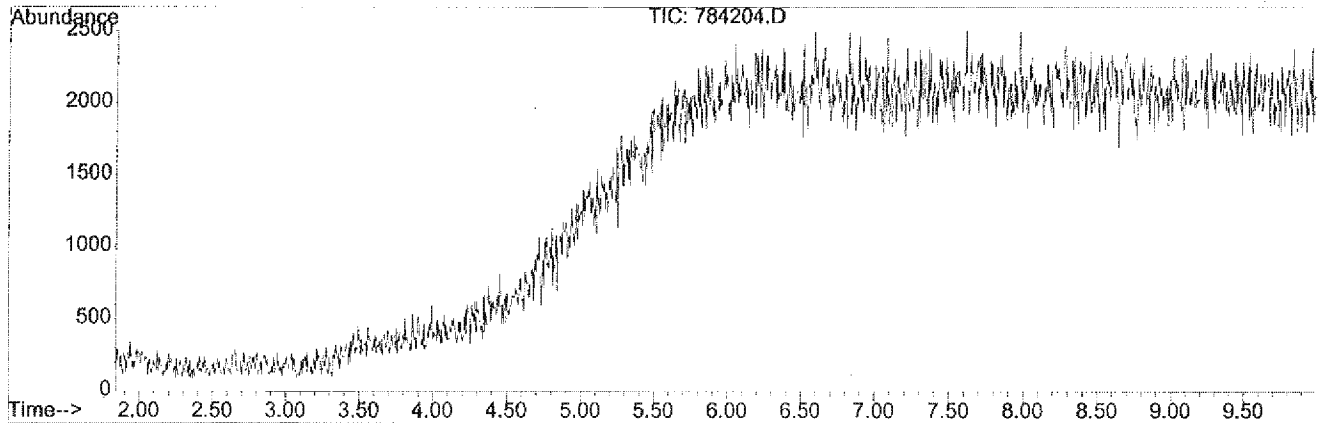
Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

Area Percent / Library Search Report
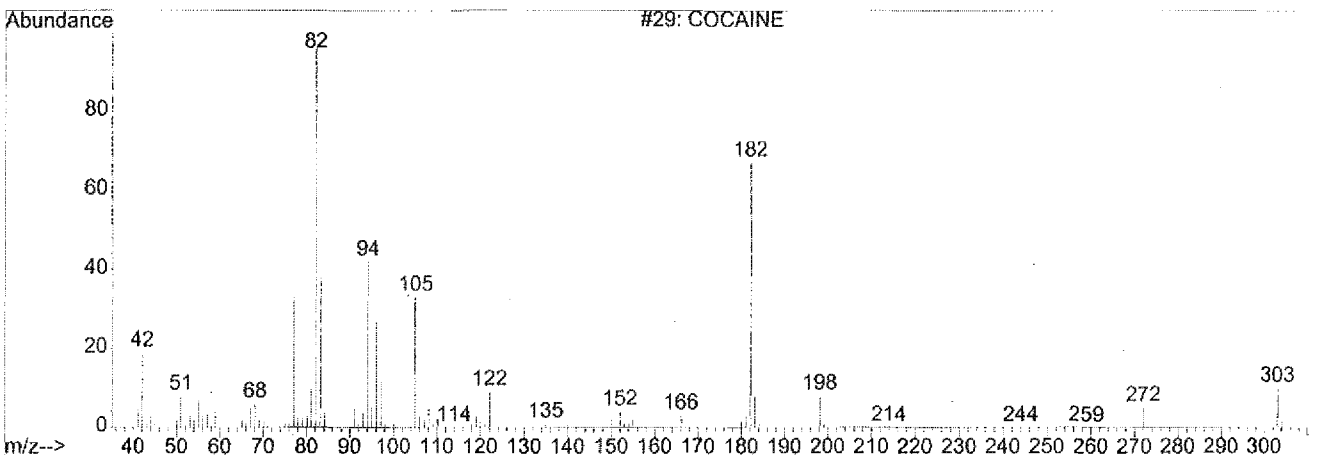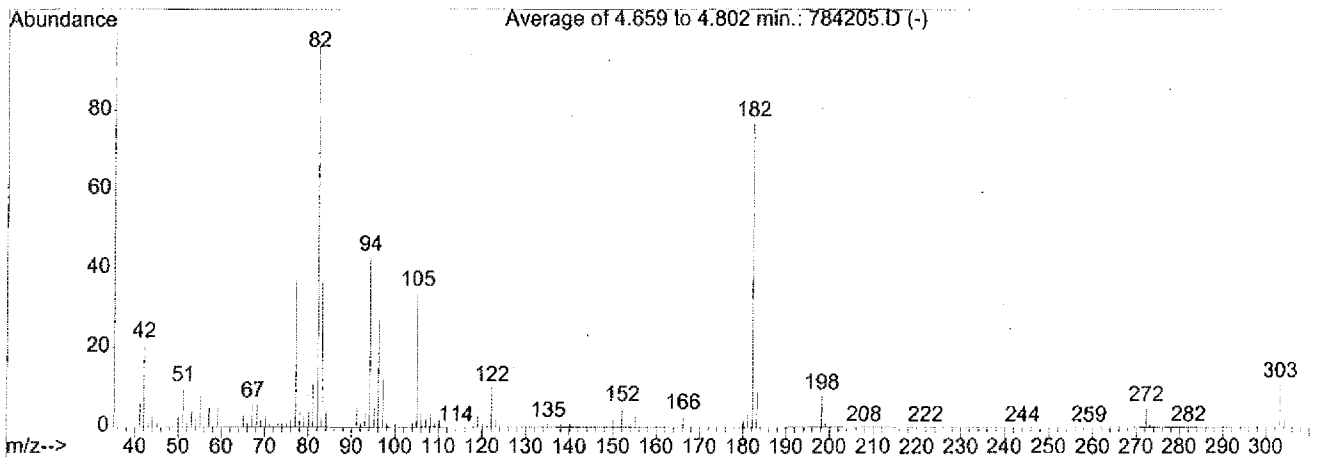
Information from Data File:
File Name   : F:\SYSTEM7\04_25_11\784205.D
Operator   : ASD
Date Acquired   : 25 Apr 2011   10:07
Sample Name   : COCAINE STD
Submitted by   :
Vial Number   :   5
AcquisitionMeth: DRUGS
Integrator   : RTE

Ret. Time	Area	Area %	Ratio %
4.680	1418635	100.00	100.00

784205.D   Tue May 31 09:57:46 2011   Page   1

Area Percent / Library Search Report

Information from Data File:
```
File Name       : F:\SYSTEM7\04_25_11\784205.D
Operator        : ASD
Date Acquired   : 25 Apr 2011  10:07
Sample Name     : COCAINE STD
Submitted by    :
Vial Number     :   5
AcquisitionMeth : DRUGS
Integrator      : RTE
```

Search Libraries: C:\DATABASE\SLI.L   Minimum Quality: 90
                    C:\DATABASE\PMW_TOX2.L   Minimum Quality: 90
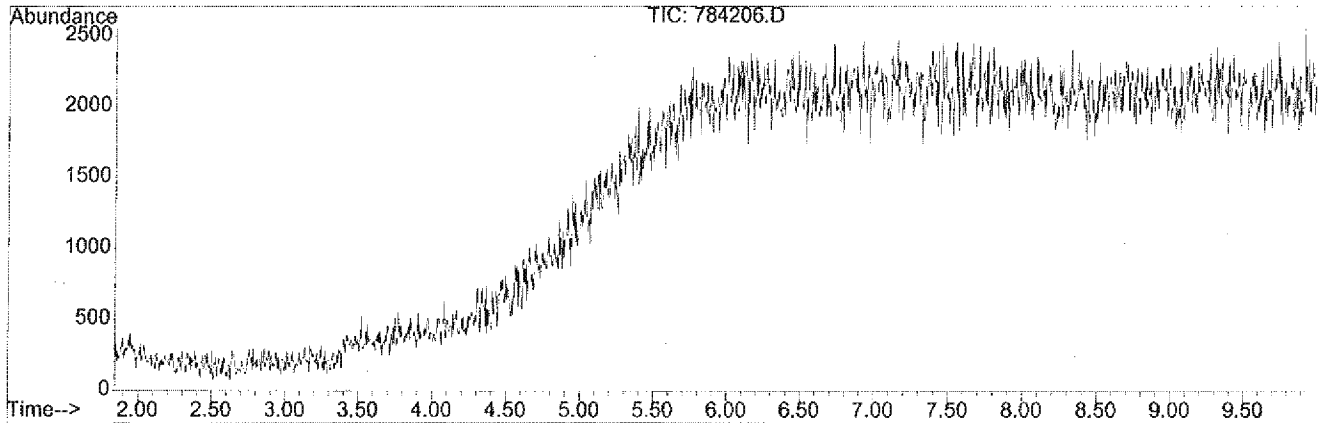   C:\DATABASE\NIST98.L

PK#	RT	Library/ID	CAS#	Qual
1	4.68	C:\DATABASE\SLI.L		
		COCAINE	000050-36-2	99

Average of 4.659 to 4.802 min.: 784205.D (-)

#29: COCAINE

784205.D   Tue May 31 09:57:46 2011   Page   2

Area Percent / Library Search Report

Information from Data File:
File Name   : F:\SYSTEM7\04_25_11\784206.D
Operator   : ASD
Date Acquired : 25 Apr 2011 10:20
Sample Name   : BLANK
Submitted by   :
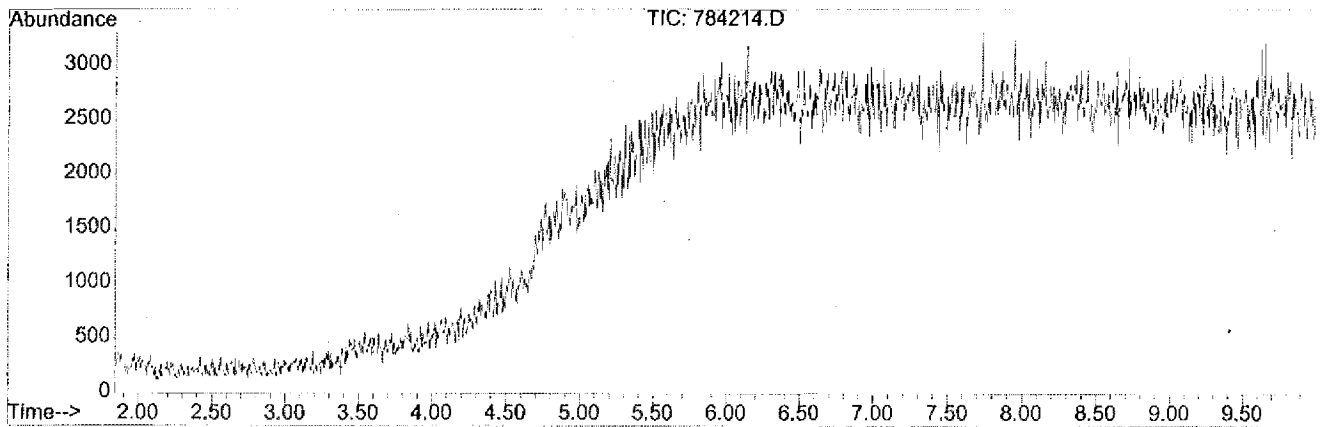Vial Number   :   1
AcquisitionMeth: DRUGS
Integrator   : RTE

Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

784206.D   Tue May 31 09:57:49 2011   Page 1

Area Percent / Library Search Report

Information from Data File:
```
File Name        : F:\SYSTEM7\04_25_11\784214.D
Operator         : ASD
Date Acquired    : 25 Apr 2011   12:01
Sample Name      : BLANK
Submitted by     : MGL
Vial Number      :   1
AcquisitionMeth: DRUGS
Integrator       : RTE
```
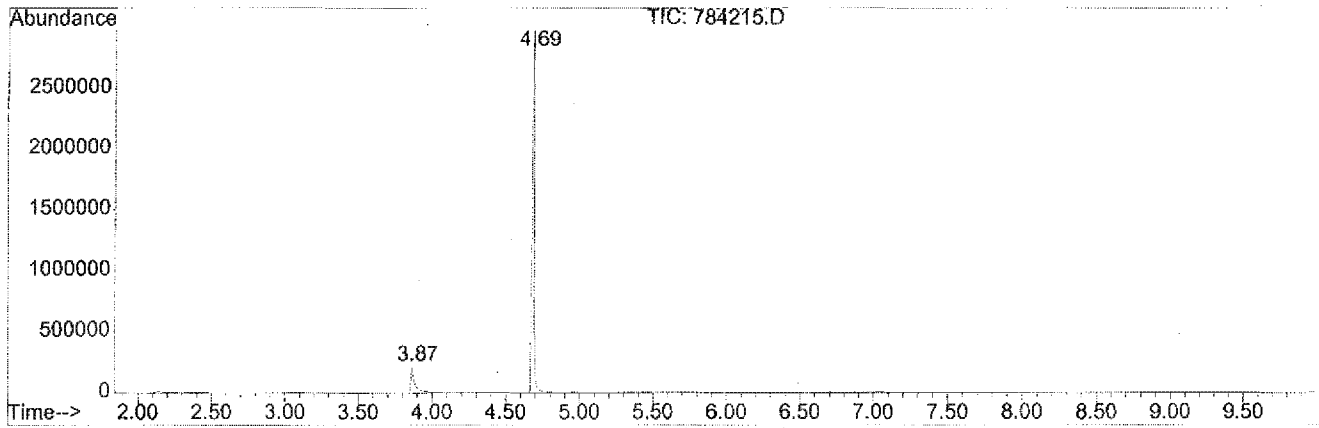

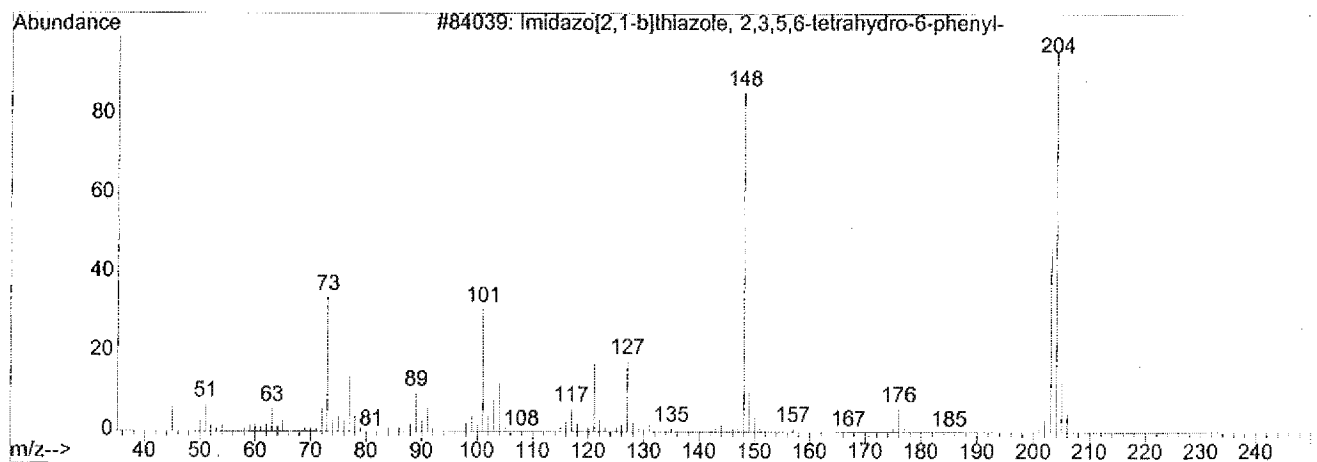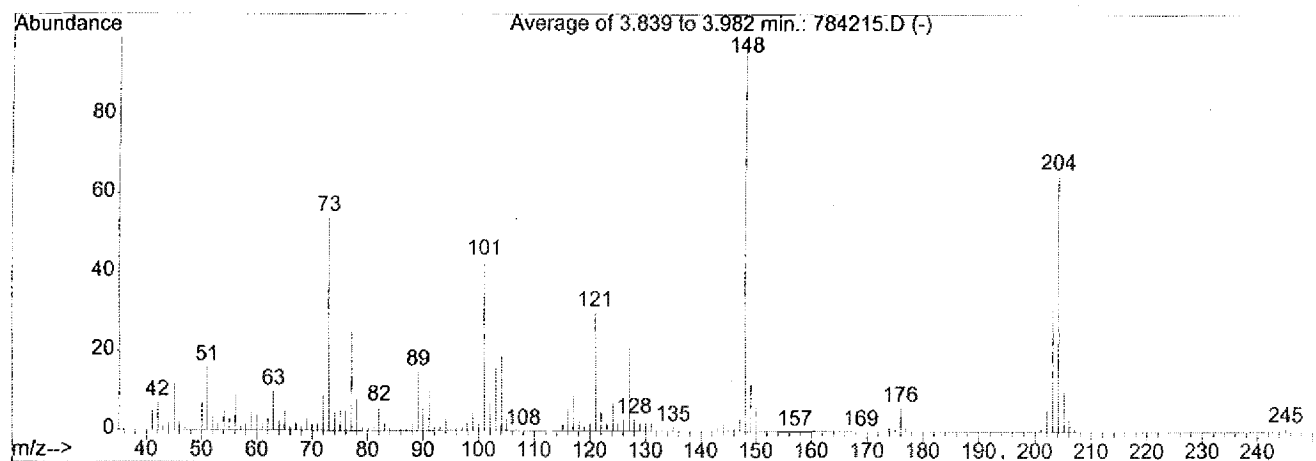| Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:
File Name   : F:\SYSTEM7\04_25_11\784215.D
Operator   : ASD
Date Acquired : 25 Apr 2011 12:13
Sample Name   : ███████
Submitted by   : MGL
Vial Number   : 15
AcquisitionMeth: DRUGS
Integrator   : RTE

Ret. Time	Area	Area %	Ratio %
3.865	392533	11.23	12.65
4.686	3102138	88.77	100.00

784215.D   Tue May 31 09:57:59 2011   Page 1

Area Percent / Library Search Report

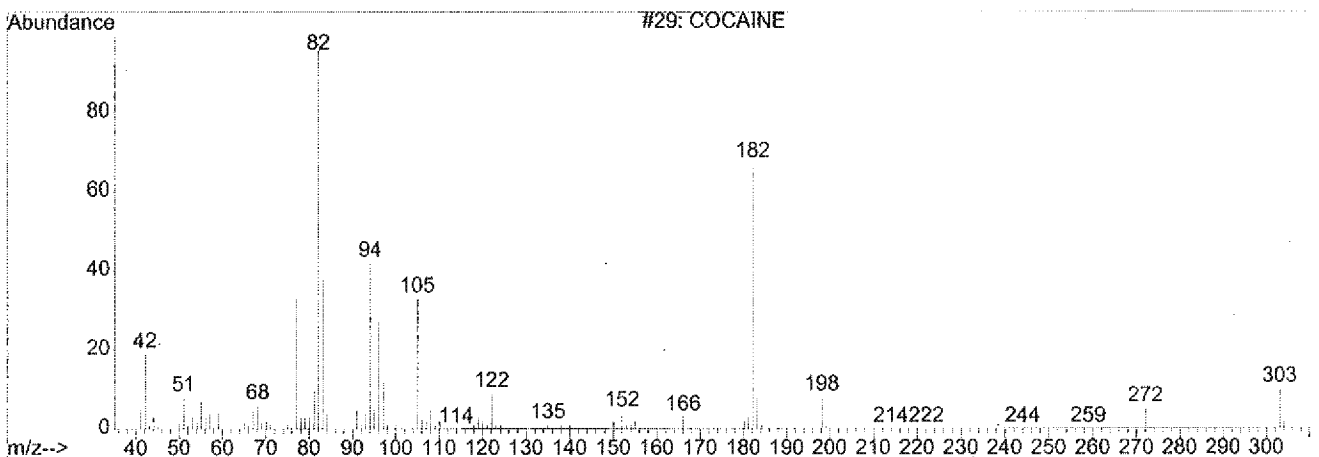Information from Data File:
```
File Name       : F:\SYSTEM7\04_25_11\784215.D
Operator        : ASD
Date Acquired   : 25 Apr 2011   12:13
Sample Name     : ███████████
Submitted by    : MGL
Vial Number     : 15
AcquisitionMeth: DRUGS
Integrator      : RTE
```

Search Libraries:	C:\DATABASE\SLI.L	Minimum Quality: 90
	C:\DATABASE\PMW_TOX2.L	Minimum Quality: 90
	C:\DATABASE\NIST98.L	

PK#	RT	Library/ID	CAS#	Qual
1	3.87	C:\DATABASE\NIST98.L		
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	98
		Imidazo[2,1-b]thiazole, 2,3,5,6-tet	006649-23-6	97

Abundance — Average of 3.839 to 3.982 min.: 784215.D (-)

Abundance — #84039: Imidazo[2,1-b]thiazole, 2,3,5,6-tetrahydro-6-phenyl-

784215.D   Tue May 31 09:58:00 2011   Page   2

Area Percent / Library Search Report
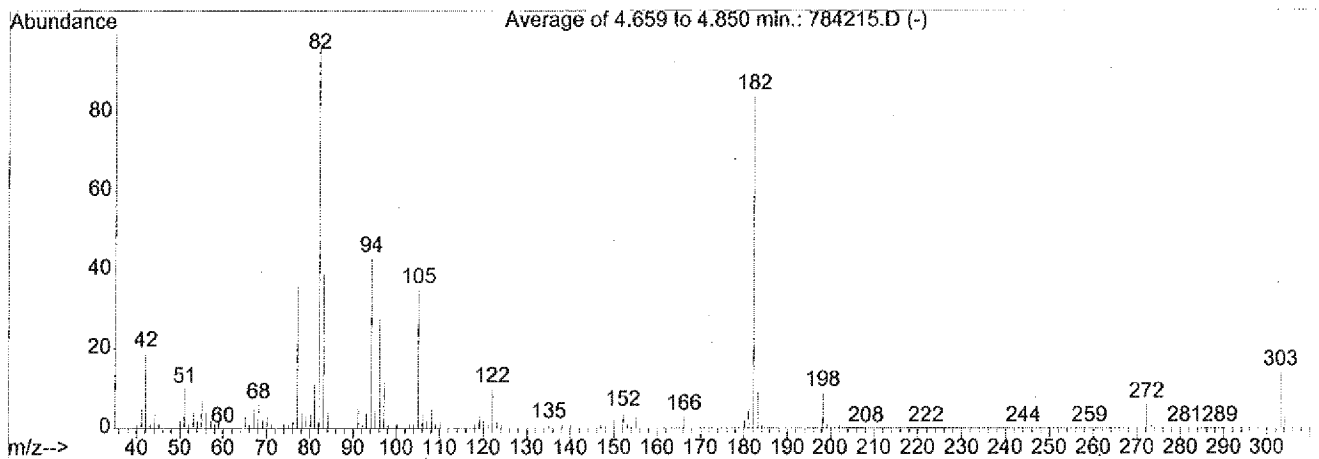

Information from Data File:
```
File Name       : F:\SYSTEM7\04_25_11\784215.D
Operator        : ASD
Date Acquired   : 25 Apr 2011   12:13
Sample Name     : ███████████
Submitted by    : MGL
Vial Number     : 15
AcquisitionMeth : DRUGS
Integrator      : RTE
```

Search Libraries: C:\DATABASE\SLI.L   Minimum Quality: 90
                    C:\DATABASE\PMW_TOX2.L   Minimum Quality: 90
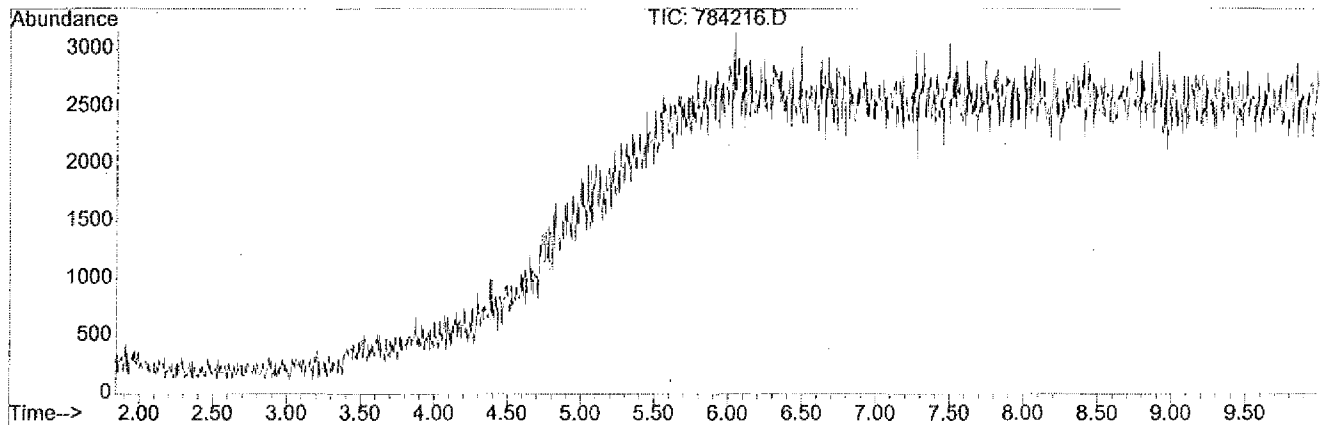   C:\DATABASE\NIST98.L

PK#	RT	Library/ID	CAS#	Qual
2	4.69	C:\DATABASE\SLI.L		
		COCAINE	000050-36-2	99

Abundance — Average of 4.659 to 4.850 min.: 784215.D (-)

Abundance — #29: COCAINE

Area Percent / Library Search Report

Information from Data File:
File Name   : F:\SYSTEM7\04_25_11\784216.D
Operator   : ASD
Date Acquired : 25 Apr 2011 12:26
Sample Name   : BLANK
Submitted by   : MGL
Vial Number   :   1
AcquisitionMeth: DRUGS
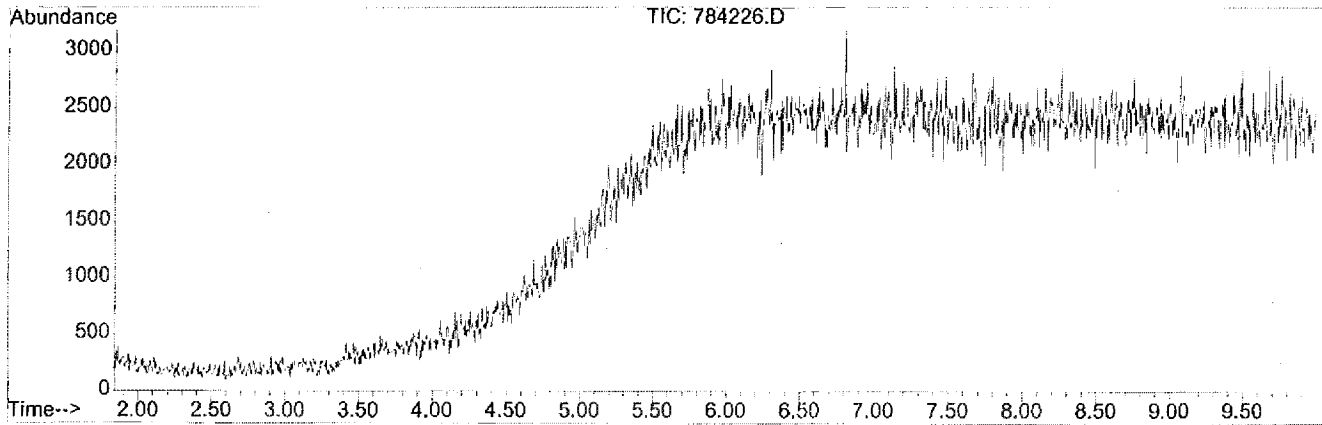Integrator   : RTE

Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

784216.D   Tue May 31 09:58:03 2011   Page 1

Area Percent / Library Search Report

Information from Data File:
```
File Name      : F:\SYSTEM7\04_25_11\784226.D
Operator       : ASD
Date Acquired  : 25 Apr 2011  14:33
Sample Name    : BLANK
Submitted by   :
Vial Number    :    1
AcquisitionMeth: DRUGS
Integrator     : RTE
```
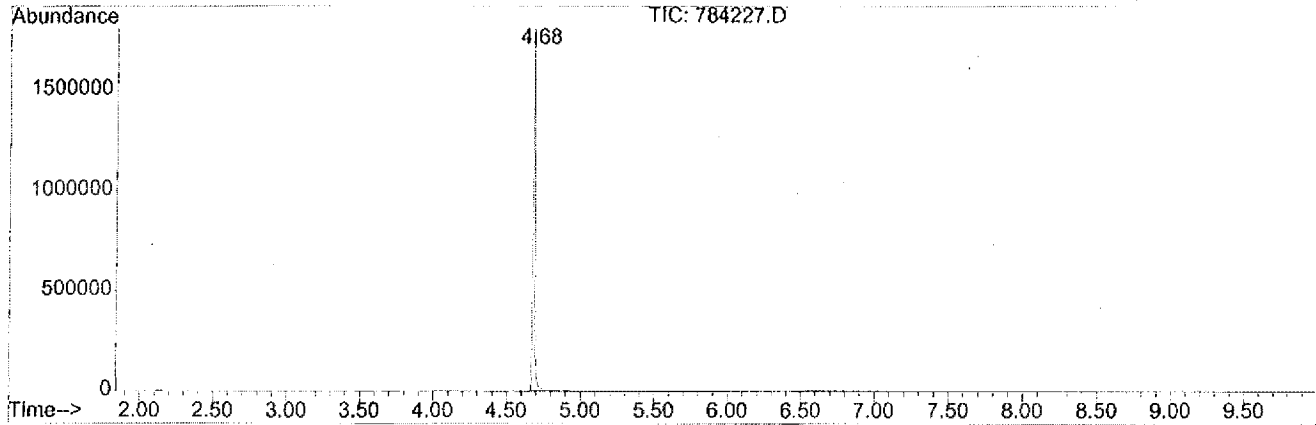

Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

784226.D   Tue May 31 09:58:10 2011   Page   1

Area Percent / Library Search Report

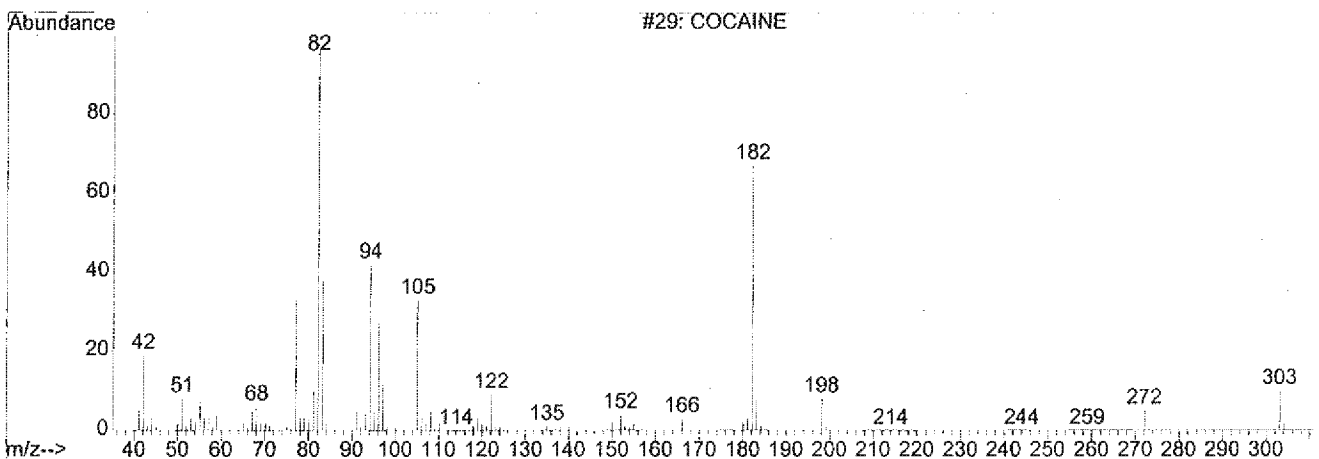Information from Data File:
```
File Name      : F:\SYSTEM7\04_25_11\784227.D
Operator       : ASD
Date Acquired  : 25 Apr 2011  14:45
Sample Name    : COCAINE STD
Submitted by   :
Vial Number    :    5
AcquisitionMeth: DRUGS
Integrator     : RTE
```


Ret. Time	Area	Area %	Ratio %
4.680	1662607	100.00	100.00

Area Percent / Library Search Report

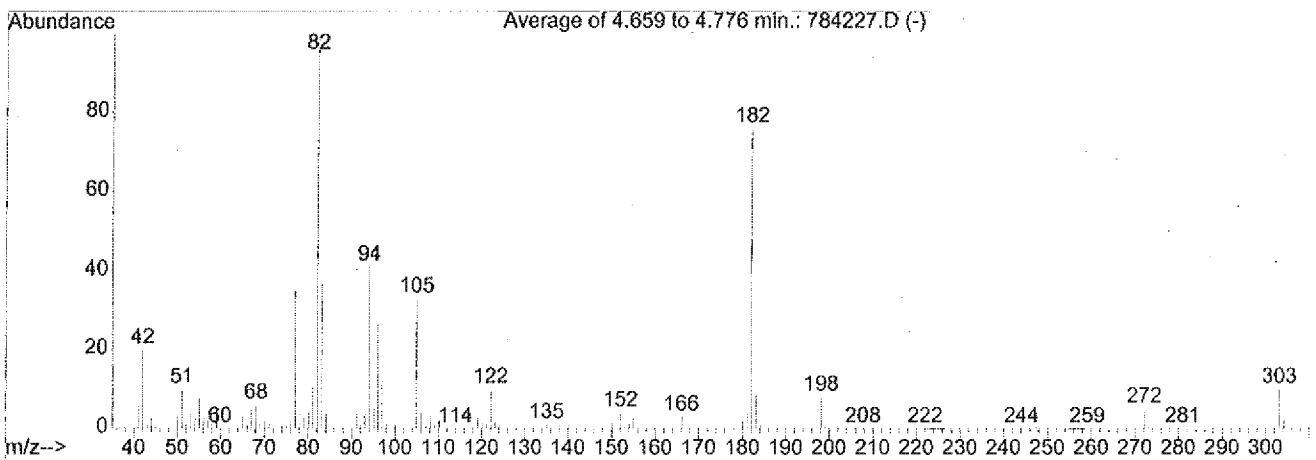Information from Data File:
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File Name       : F:\SYSTEM7\04_25_11\784227.D
Operator        : ASD
Date Acquired   : 25 Apr 2011  14:45
Sample Name     : COCAINE STD
Submitted by    :
Vial Number     :    5
AcquisitionMeth: DRUGS
Integrator      : RTE
```

Search Libraries: C:\DATABASE\SLI.L   Minimum Quality: 90
                    C:\DATABASE\PMW_TOX2.L   Minimum Quality: 90
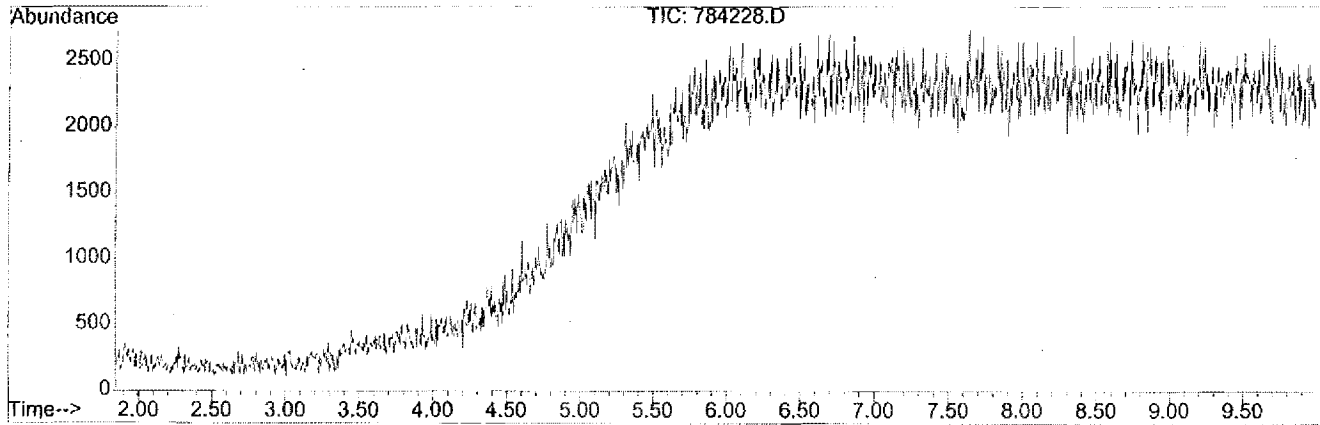   C:\DATABASE\NIST98.L

PK#	RT	Library/ID	CAS#	Qual
1	4.68	C:\DATABASE\SLI.L COCAINE	000050-36-2	99

Area Percent / Library Search Report

Information from Data File:
```
File Name      : F:\SYSTEM7\04_25_11\784228.D
Operator       : ASD
Date Acquired  : 25 Apr 2011  14:58
Sample Name    : BLANK
Submitted by   :
Vial Number    :    1
AcquisitionMeth: DRUGS
Integrator     : RTE
```


Ret. Time	Area	Area %	Ratio %

NO INTEGRATED PEAKS

Last page…… …no further data